AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (currently amended) An isolated and purified DNA fragment, which comprises the nucleotide sequence given in SEQ ID NO: 14, or a sequence ~~showing at least 84 % homology to said sequence~~ that hybridizes under stringent conditions to a hybridization probe the nucleotide sequence of which consists of SEQ ID NO: 14 or the complement of SEQ ID NO: 14, wherein said DNA fragment has a function to encode polypeptides necessary to produce aclacinomycins.

3. (previously presented) A recombinant DNA, which comprises said DNA fragment of claim 2, cloned in a plasmid replicating in *Streptomyces* or in *E. coli.*

4. (withdrawn) The recombinant DNA according to claim 3, which is the plasmid pSgs4 deposited in *S. lividans* strain TK24/pSgs4 with the accession number DSM 12998.

5. (withdrawn) The recombinant DNA according to claim 3, which is the plasmid pSgc5 deposited in *E. coli* strain XLIBlueMRF'/pSgc5 with the accession number DSM 12999.

6-8. (canceled)

9. (currently amended) A process for increasing aclacinomycin production in a bacterial host, comprising transferring the DNA fragment of claim 2 into a *Streptomyces* host producing aclacinomycins or aklavinone ~~intermediates thereof~~, cultivating the recombinant strain obtained, and isolating the aclacinomycins produced.

10. (previously presented) The process according to claim 9, wherein the *Streptomyces* host is a *Streptomyces galilaeus* host.

11. (previously presented) The process according to claim 10, wherein the *Streptomyces galilaeus* host is a mutant strain derived from *S. galilaeus* ATCC 31615.

12. (previously presented) A process for producing polyketides, comprising transferring the DNA fragment of claim 2 into a *Streptomyces* host producing polyketide compounds, cultivating the recombinant strain obtained, and isolating the compounds produced.

13. (currently amended) A process for producing ~~anthracycline metabolites~~ polyketides, comprising transferring the DNA fragment according to claim 2 into a *Streptomyces peucetius* host producing anthracyclines or aklavinone ~~intermediates thereof~~, cultivating the recombinant strain obtained, and isolating the compounds produced.

14. (currently amended) The process according to claim 9, wherein the DNA fragment comprises gene sequences encoding ~~includes~~ an activator, a dehydratase, an oxidoreductase, a DTP-glucose 4,6-dehydratase, a glycosyl transferase, an isomerase, an aklaviketone reductase, ~~a polyketide assembler,~~ a cyclase, an aminomethylase, a glucose- l-phosphate thymidylyl transferase, and an aminotransferase.

15. (currently amended) The process according to claim 12, wherein the DNA fragment comprises gene sequences encoding ~~includes~~ an activator, a dehydratase, an oxidoreductase, a DTP-glucose 4,6-dehydratase, a glycosyl transferase, an isomerase, an aklaviketone reductase, ~~a polyketide assembler,~~ a cyclase, an aminomethylase, a glucose- l-phosphate thymidylyl transferase, and an aminotransferase.

16. (withdrawn) An isolated polynucleotide comprising a nucleic acid sequence selected from the group consisting of the nucleotide sequence included in the plasmid pSgs4 deposited in *S. lividans* strain TK24/pSgs4 with the accession number DSM 12998 and the nucleotide sequence included in the

plasmid pSgc5 deposited in *E. coli* strain XL1BlueMRF'/pSgc5 with the accession number DSM 12999.

17. (new) The DNA fragment of claim 2, wherein said stringent conditions are at 65°C in a low salt concentration.